

CLAIMS

What is claimed is:

~~CLAIMS FOR CON OF 2269-3846US~~

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1. A method for fabricating a chip-scale package, comprising:
positioning a preformed polymeric film over a semiconductor device with at least one aperture
that extends substantially longitudinally through said preformed polymeric film aligned
with a corresponding bond pad of said semiconductor device; and
introducing conductive material into said at least one aperture.
2. The method of claim 1, further comprising adhering said preformed polymeric film to
said semiconductor device.
3. The method of claim 1, further comprising defining said at least one aperture through
said preformed polymeric film.
4. The method of claim 3, wherein said defining is effected after said positioning.
- Sub A2 > 5. ~~The method of claim 7, wherein said defining is effected before said positioning.~~
6. The method of claim 1, wherein said introducing comprises bonding said conductive
material to said corresponding bond pad.
7. The method of claim 1, wherein said introducing comprises depositing said conductive
material onto said preformed polymeric film and within said at least one aperture.
8. The method of claim 7, wherein said depositing comprises chemical vapor depositing
or physical vapor depositing said conductive material.

9. The method of claim 1, wherein said introducing comprises placing a preformed conductive structure within said at least one aperture.

10. The method of claim 1, wherein said introducing is effected before said positioning.

11. The method of claim 1, wherein said introducing is effected after said positioning.

12. The method of claim 1, further comprising forming at least one contact at an end of said conductive material, opposite said semiconductor device.

13. The method of claim 12, further comprising placing a conductive structure adjacent said at least one contact.

14. The method of claim 13, wherein said placing comprises applying solder to said at least one contact.

15. The method of claim 1, further comprising positioning at least one conductive trace on said preformed polymeric film and in communication with said conductive material.

16. The method of claim 15, further comprising forming at least one contact in communication with said conductive trace.

17. The method of claim 16, further comprising placing a conductive structure adjacent said at least one contact.

18. The method of claim 17, wherein said placing comprises applying solder to said at least one contact.

19. The method of claim 1, further comprising placing said preformed polymeric film on at least a portion of a peripheral edge of said semiconductor device.

Sub A3 > 20. The method of claim 17, further comprising placing polymeric material at least laterally adjacent said at least one conductive structure.

21. The method of claim 17, further comprising placing a conductive elastomer over at least one conductive structure.

Sub A4 > 22. The method of claim 21, further comprising placing conductive structure in contact with said conductive elastomer, opposite said at least one conductive structure.

23. A method for fabricating a chip-scale package, comprising:
placing photoimageable polymeric material on a surface of a semiconductor device;
forming a polymeric film from said photoimageable polymeric material with at least one aperture extending substantially longitudinally through said polymeric film, said at least one aperture aligned with a corresponding bond pad of said semiconductor device; and
introducing conductive material into said at least one aperture.

24. The method of claim 23, wherein said forming comprises selectively exposing regions of said photoimageable polymeric material to electromagnetic radiation.

25. The method of claim 23, further comprising defining said at least one aperture through said polymeric film.

26. The method of claim 25, wherein said defining is effected after said forming.

27. The method of claim 25, wherein said defining is effected substantially simultaneously with said forming.

28. The method of claim 23, further comprising placing at least one conductive trace on said polymeric film and in communication with said conductive material.

29. The method of claim 28, further comprising placing at least one contact in communication with said at least one conductive trace.

30. The method of claim 29, further comprising placing at least one conductive structure adjacent said at least one contact.

31. The method of claim 30, further comprising placing polymeric material at least laterally adjacent said at least one conductive structure.

32. The method of claim 30, further comprising placing a conductive elastomer over said at least one conductive structure.

33. The method of claim 32, further comprising placing at least one other conductive structure in contact with said conductive elastomer, opposite said at least one conductive structure.

34. The method of claim 23, wherein said forming comprises forming said polymeric film so as to extend at least partially over a peripheral edge of said semiconductor device.